A Case of Cystitis Mimicking Bladder Tumor

Mesane Tümörünü Taklit Eden Sistit Olgusu

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ABSTRACT

Chronic cystitis is a usual inflammatory disease of the bladder in children. Patients typically show irritative voiding symptoms. In addition, bladder mass accumulation with the possibility of malignancy can rarely be observed. We present a 12-year-old male patient in whom radiological investigations showed a focal papillary lesion. In this paper, we aimed to discuss the management of chronic cystitis.

Keywords
Bladder cancer, cystitis, diagnosis

ÖZ


Anahtar Kelimeler
Mesane kanseri, sistit, tanı

Introduction

Chronic cystitis, which can be a chronic papillary reaction to the injury of the bladder mucosa, may be seen as a benign papillary lesion mimicking papillary urothelial tumors. Similar lesions can occur throughout the urothelial epithelium in the urethra, ureter and renal pelvis named as polypoid urethritis, polypoid ureter and pyelitis, respectively (1). Parasitosis, food and drug allergies, tuberculosis, malignancies, bladder injury, chronic bladder irritation, urinary bladder catheterization, and bladder surgeries can be predisposing factors via affecting the immune system (2,3,4).

Case Presentation

A twelve-year-old male patient was admitted with the complaint of gynecomasty. The patient had no urological symptoms, such as pain or dysuria, and he did not have a history of previous surgery. Complete blood count revealed the followings: neutrophils: 40.1%, lymphocytes: 41.6%, monocytes: 7.4%, basophils: 0.3%, eosinophils: 10.6%, hemoglobin: 13.3 g/dl, and white blood cells: 7900/ml. Eosinophils were double than the normal level. The biochemical and hormonal parameters were normal. There were no erythrocytes and leukocytes in microscopic examination of the urine. Urine specific gravity was 1024 and nitrite and urine cultures were negative. There was a smooth eccentric thickening of the left side wall of the bladder towards the bladder base on computed tomography images (Figure 1). Cystoscopic examination revealed a 1x1 cm polypoidal erythematous mass on the left ureteral orifice superolaterally (Figure 2). Transurethral resection (TUR) of the mass was done. Histopathological examination showed the majority of the homogeneous acellular eosinophilic material accumulation in the lamina propria and chronic inflammation on the surface (Figure 3a). Lamina propria contained an intense eosinophilic material accumulation around and in the vessels (Figure 3b). Congo-red showed a positive staining in the eosinophilic material accumulated areas (Figure 3c). Eosinophilic material accumulation indicated negative crystal violet staining (Figure 3d). The case was reported as an amyloid-negative chronic active cystitis histopathologically.

Discussion

Chronic cystitis is not so rare in childhood and the symptoms can change according to the size of the area affected in the bladder. In our case, chronic cystitis was involving only the left orifice, however, in other reported cases the bladder mucosa was totally impressed (2,3). Eosinophilic cystitis (EC), another rare condition, is a benign disease,
in which eosinophils can affect myofibroblastic inflammation, mimicking bladder tumors. Benign tumors of the bladder are rare in childhood. Bladder tumors in childhood also appear locally. To distinguish cystitis from tumors via radiological imagining methods is not possible. Instead of aggressive treatments, bladder-sparing approaches, including TUR or partial cystectomy are recommended to control these benign inflammatory lesions in children (5). In this age group, cystoscopic examination with histopathological evaluation should be performed for differential diagnosis. EC, which is characterized by massive eosinophilic infiltration of the bladder wall, is a rare inflammatory lesion of the bladder. It is often confused with bladder tumors and may cause urinary tract infections (6). It has been postulated that the unwanted antigen enters the bladder and forms antigen-antibody complexes, which bringing and accumulating eosinophils into the bladder wall (7). Pollen, dust, mites, and food allergens are known as the priority allergens. Some allergic diseases, such as asthma are believed to be associated with EC, however, any specific allergen was not detected in the present case (8). Our patient was a 12-year-old male and had no known history of allergy.

**Conclusion**

Cystitis is more common than bladder tumors in childhood and can sometimes mimic bladder tumors. Biopsy and histopathological examination is the first step for diagnosis. Treatment options vary according to the diagnosis.

**Ethics**

Informed Consent: Consent form was filled out by all participants.

Peer-review: Internal peer-reviewed.

**Authorship Contributions**

Surgical and Medical Practices: Ahmet Çamtosun, Ramazan Altındaş

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**References**